



# Arthritis Appropriate Physical Activity and Self- Management Education Interventions

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*A Compendium of Implementation Information*

*Prepared by the Centers for Disease Control  
and Prevention Arthritis Program*

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# Introduction

There currently are a number of arthritis appropriate interventions available and it may be challenging to decide which ones are a good fit for your community or organization. The purpose of this compendium is to assist you in selecting interventions by providing a concise, standardized review of each intervention. The Centers for Disease Control and Prevention (CDC) Arthritis Program reviews interventions on the basis of their respective arthritis appropriateness and adequacy of the evidence based effectiveness and readiness for implementation as a public health intervention.<sup>1</sup> This compendium includes 13 arthritis appropriate interventions; most meet these criteria fully and a few are considered promising programs because the systems to support their implementation are still being developed. The most current status of each intervention on the CDC Arthritis Program Web site is available at <http://www.cdc.gov/arthritis/interventions.htm>.

Intervention reviews are sorted by their focus on physical activity or self-management education and presented in alphabetical order. Information is organized by the following four headings: program description, program requirements, contact information, and evidence-based effectiveness. Available Web sites and organization contacts can be found under the contact information heading.

The interventions reviewed herein include the following:

## **Physical Activity:**

Arthritis Foundation Exercise Program (AFEP)

Active Living Every Day (ALED)

Enhance Fitness (EF)

Fit and Strong (F&S)

Walk with Ease (WWE - Group)

Walk with Ease (WWE - Self Directed)

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<sup>1</sup> Brady TJ, Jernick S, Hootman J, Snizek JE. Public health interventions for arthritis: expanding the toolbox of evidence-based interventions, *Journal of Women's Health*. 2009;18(12)

Arthritis Foundation Aquatics Program (AFAP)\*

\*Note: This program meets the CDC Arthritis Program criteria; however, CDC does not fund dissemination of AFAP because significant market penetration has been achieved.

## **Self-Management Education:**

Arthritis Self-Management Program (ASMP)

ASMP – Spanish - Programa de Manejo Personal la Artritis

The Arthritis Toolkit (Spanish: Manegando Mi Artritis)

Better Choices Better Health<sup>®</sup> for Arthritis (ASMP Internet-Based)

Chronic Disease Self-Management Education (CDSMP)

CDSMP – Spanish – Tomando Control de su Salud

Five additional programs being considered for CDC Arthritis Program classifications in the future include:

Active Choices

Better Choices Better Health<sup>®</sup> for Arthritis (CDSMP Internet-based)

First Step to Active Health

Fitness and Exercise Program for People with Arthritis (FEPA.)

Arthritis Foundation Tai Chi

This compendium is designed to provide a quick snapshot of key information to help with selecting interventions to implement and is not intended to be all-inclusive. After making a selection, more complete information about implementation is available from the intervention distributor at the Web site or contact provided with each review. Any questions about the CDC Arthritis Program review criteria or the strategic approach to dissemination and implementation of these interventions can be answered by contacting the program at 770-488-5464.

# Intervention Summary Tables

## *Physical Activity*



## Arthritis Foundation Exercise Program (AFEP)

### Physical Activity Intervention

<b>Program Description</b>	The Arthritis Foundation Exercise Program (AFEP) is a low-impact recreational exercise program (formerly known as PACE - People with Arthritis Can Exercise) Designed for people with arthritis.
Program Outcomes	Designed to improve functional ability, self-confidence, self-care, mobility, muscle strength and coordination and to reduce fatigue, pain, and stiffness.
Target Audience	People with arthritis (sedentary to relatively active).
Key Activities	Gentle range-of-motion exercises that are suitable for every fitness level strengthening exercises, cardiovascular, endurance, balance, coordination, and relaxation activities with stress management. Health education that provides up-to-date information about arthritis self-management and exercise. Optional activities include weight-bearing, posture/body mechanics, body awareness, and psych socialization activities.
Setting	Community.
Mode of Delivery Class Size	Small group (15–20 recommended).
Duration and Number of Sessions	One-hour long class held 2–3 times per week: 8–12 weeks duration or ongoing.
<b>Program Requirements</b>	
Capacity	
Instructor Qualifications	One Arthritis Foundation (AF) certified instructor per class education or related experience in exercise, fitness, or health-related field required. Must be CPR certified and affiliated with an AF approved facility.
Training and Training Source	AF certification includes one day (8 hours) training. Recertification every 3 years required. Training may be hosted by the partnering organization.
License(s) and License Source	No license required. Must have a facility/organization cosponsor agreement with the Arthritis Foundation.
Physical Space	Community room with sturdy chairs and adequate space for exercise.
Equipment	Weights, elastic exercise bands, balls, balloons or other props, music or relaxation CDs and optional floor mats.
Implementation Costs	<ul style="list-style-type: none"> <li>• License: N/A.</li> <li>• Training provided by AF. Contact AF for current registration and other training costs.</li> <li>• Instructor guide/materials: AFEP manual is included with training registration costs of \$9.55 per person.</li> <li>• Equipment: One set of equipment for trainer to demonstrate and one set for each trainee. (See the previous equipment list.)</li> <li>• Participant materials: Manual \$2.30/person.</li> <li>• Other: Facility rental, LCD projector, staff person to coordinate site and instructor and participant logistics for training or workshops. Provide adequate liability insurance coverage (at least \$1 million).</li> </ul>
Other	Refer to local AF chapter for current requirements and costs.
Quality Assurance	
Monitoring	AF periodic site visits to assure program fidelity and training workshop post-tests conducted.

## Arthritis Foundation Exercise Program (AFEP)

### Physical Activity Intervention

Data Reporting	Reporting as required by cosponsor agreement with AF including submitting quarterly course statistics using AF forms.
Outcome Evaluation	Optional participant impact outcome questionnaire.
Sustainability	Potential support through participant registration (typically under \$50 per course).
<b>Contact Information</b>	
Developer	Arthritis Foundation.
Distributor	Arthritis Foundation.
Contact	Local AF chapter contact information is available at <a href="http://www.arthritis.org">http://www.arthritis.org</a> or <a href="http://www.arthritis.org/exercise.php">http://www.arthritis.org/exercise.php</a> .
<b>Contact Information</b>	
Developer	Arthritis Foundation.
Distributor	Arthritis Foundation.
Contact	Contact the local AF chapter <a href="http://www.arthritis.org">http://www.arthritis.org</a> or <a href="http://www.arthritis.org/exercise.php">http://www.arthritis.org/exercise.php</a>
<b>Evidence Base (Selected References)</b>	
	<p>Callahan LF, Mielenz T, Freburger J, Shreffler J, Hootman J, Brady T, et al. A randomized controlled trial of the People with Arthritis Can Exercise Program: symptoms, function, physical activity, and psychosocial outcomes. <i>Arthritis Care &amp; Research</i>. 2008;59:92–101. Available at <a href="http://onlinelibrary.wiley.com/doi/10.1002/art.23239/pdf">http://onlinelibrary.wiley.com/doi/10.1002/art.23239/pdf</a> <a href="http://www.cdc.gov/arthritis/interventions/physical_activity.htm">http://www.cdc.gov/arthritis/interventions/physical_activity.htm</a>.</p> <p>In a randomized control trial, (n = 346), participants who attended at least 50% of the basic 8-week People with Arthritis Can Exercise (PACE) program (now known as AFEP) reported improvements in symptoms, self-efficacy for arthritis management, and upper and lower extremity function. Study also reports a decline in function and self-efficacy for exercise and that achieving sustained improvement for these outcomes may require continued participation in PACE.</p> <p>Minor MA, Prost E, Nigh M, Outcomes from the Arthritis Foundation exercise program: a randomized controlled trial, <i>Arthritis and Rheumatism</i>. . 2007;56:S309. <a href="http://acr.confex.com/acr/2007/webprogram/Paper7681.html">http://acr.confex.com/acr/2007/webprogram/Paper7681.html</a></p> <p>A randomized control trial (n = 174) of PACE after 8-week and 16-week attendance. Participation in PACE 3 days a week for 8 weeks resulted in statistically significant and clinically meaningful improvements in pain, fatigue, function and self-efficacy for managing symptoms. Sixteen weeks of PACE resulted in minimal differences compared with 8 weeks.</p>



## Active Living Every Day (ALED)

### Physical Activity Intervention

<b>Program Description</b>	Active Living Every Day (ALED) is a step-by-step behavior change program that helps individuals overcome their barriers to physical activity. ALED offers alternatives to more traditional structured exercise programs as all physical activity is done outside of class.
Program Outcomes	Designed to increase physical activity and aerobic fitness, decrease stiffness; improve blood pressure, blood lipid levels, and body fat.
Target Audience	General population and sedentary people with or without chronic conditions; appropriate for older adults.
Key Activities	Class sessions incorporate a short lecture and group discussion as participants learn to set goals, overcome barriers, and find activities they enjoy. Participants choose their own activities and create their own plans based on individual lifestyle and personal preferences, focusing on moderate-intensity activities that can be easily added to one's daily routines. The course text and optional online tools offer structure and support as participants explore their options and begin to realize how enjoyable physical activity can be. As participants work through the course, they learn lifestyle management skills and build on small successes, methods that have proven effective in producing lasting change.
Setting	Community.
Mode of Delivery and Class Size	Small group (20) recommended. Optional online tools also available.
Duration and Number of Sessions	One-hour-long workshops held once per week for 12 or 20 weeks.
<b>Program Requirements</b>	
Capacity	
Leader (Facilitator) Qualifications	One leader (facilitator) per class: No educational or fitness certification required. Must be comfortable with groups and have strong teaching skills.
Training and Training Source	A leader (facilitator) must complete on-line prerequisite course work and a 2day online or in-person training and pass a competency exam from Active Living Partners (ALP). The ALP current training workshop schedule is available at <a href="http://www.activeliving.info/TrainingSched.cfm">http://www.activeliving.info/TrainingSched.cfm</a> .
License(s) & License Source	A license from Active Living Partners is required to become a provider and to use the ALED name, logo, and materials.
Physical Space	Classroom with adequate seating.
Equipment	Each participant needs a text book; computer access for supplemental tools and support is optional. Each group needs the following: LCD projector and computer, flip chart, markers, pens, sign-in sheet, etc.
Implementation Costs	<ul style="list-style-type: none"> <li>• Licensing: Contact ALP for current organization license fee and requirements.</li> <li>• Training: \$373 per leader (facilitator) includes materials, training, and competency test.</li> <li>• Leader (Facilitator) Materials included in training fee.</li> <li>• Equipment: LCD projector and computer, flip chart, markers, pens etc.</li> </ul> Participant Materials: each ALED participant package (text and Web link) \$37.95. Bulk order discounts are available.
Other	See Active Living Partners for current pricing.

## Active Living Every Day (ALED)

### Physical Activity Intervention

Quality Assurance	
Monitoring	N/A.
Data Reporting	N/A.
Outcome Evaluation	Optional.
Other	Leader (facilitator) must pass a competency test after completing training.
Sustainability	Programs may consider covering the cost of materials by charging a small participant registration fee. Establishing a lending library is another option.
Contact Information	
Developer	The Cooper Institute available at <a href="http://www.cooperinstitute.org/education">http://www.cooperinstitute.org/education</a> .
Distributor	Active Living Partners.
Contact	<a href="http://www.activeliving.info">http://www.activeliving.info</a> ; Contact Active Living Partners (ALP) at 800-747-4457 ext. 2522
Evidence Base (Selected References)	
	<p>Dunn AL, Marcus GH, Kampert JB, Garcia ME, Kohl HW, Blaire SN. Comparison of lifestyle and structured interventions to increase physical activity and cardiorespiratory fitness <i>JAMA</i>.1999;28(4):327–334. Available at <a href="http://jama.ama-assn.org/content/281/4/327.full">http://jama.ama-assn.org/content/281/4/327.full</a>.</p> <p>In a randomized control trial involving sedentary men (n = 116) and sedentary women (n = 119) intervention effects of lifestyle physical activity and traditional structured exercise groups were compared. Both groups had significant and comparable improvements in physical activity and cardiorespiratory fitness from baseline to 24 months. In previously sedentary adults, a lifestyle physical activity intervention is as effective as a structured exercise program in improving physical activity, cardiorespiratory fitness and blood pressure.</p> <p>Baruth M, Wilcox S, Wegley S, Buchner DM, Ory MG, Phillips A, et.al, Changes in physical functioning in the active living every day program of the active for life initiative. <i>International Journal of Behavioral Medicine</i>. 2010;18:199–208. Available at <a href="http://www.springerlink.com/content/2h743977n4788504/fulltext.pdf">http://www.springerlink.com/content/2h743977n4788504/fulltext.pdf</a>.</p> <p>Approximately 100 participants of ALED courses from each of 4 consecutive years were tested pre- and post-attendance. Participants significantly increased their performance in all four physical functioning tests. Physical functioning increased regardless of BMI, race/ethnicity, or baseline impairment status. ALED is an example of an evidence-based physical activity program that can be successfully translated into community programs and result in significant and clinically meaningful improvements in performance-based measures of physical functioning.</p>

<b>Enhance Fitness (EF)</b>	
<b>Physical Activity Intervention</b>	
<b>Program Description</b>	Enhance Fitness (EF) is a multi-component small group exercise program originally designed for older adults; exercise revised slightly to be arthritis appropriate. (Formerly known as Lifetime Fitness Program)
Program Outcomes	Designed to increase strength, improve flexibility and balance, boost activity levels, and elevate mood.
Target Audience	General population; appropriate for arthritis
Key Activities	5-minute warm-up, 20-minute aerobics workout, 5-minute cool-down, 20-minute strength training, 10-minute stretching workout, balance exercises included throughout.
Setting	Community
Mode of Delivery Class Size	Small group of 10 to 25 participants
Duration & # Sessions	Hour-long classes offered 3 times per week (on ongoing basis).
Other	Participants can join at any time.
<b>Program Requirements</b>	
Capacity	
Instructor Qualifications	One instructor required per class. Nationally recognized Fitness Instructor Certification and CPR certification required (YMCA, ACE or ACSM). Experience working with older adults recommended.
Training & Training Source	1.5 days training by Enhance Fitness Master Trainer. <a href="http://www.projectenhance.org/">http://www.projectenhance.org/</a> . See YMCA for fitness instructor certification and training information.
License(s) & License Source	Enhance Fitness license required. See Project Enhance web site for licensing info: <a href="http://www.projectenhance.org/enhance@fitness_/enact.aspx">http://www.projectenhance.org/enhance@fitness_/enact.aspx</a>
Physical Space	Non-carpeted (wooden floor recommended) community room w/ adequate space for sitting and standing exercise; should be Americans with Disabilities (ADA) accessible.
Equipment	Armless chairs, adjustable resistance soft wrist and ankle weights, CD player, available music. Performance measure equipment: stop watch, 5lb. and 8lb. hand-weights, tape measure and “cone” (garbage can or large bottle).
Implementation Costs	Licensing: License fee year 1: \$3000 for 1 site; \$1000 for each additional site. Renewals: \$300 for 1 site, \$100 for each additional site. Training: Training fee is part of license. Instructor Materials: see website for more information Equipment: 1 time expense estimated at \$650 (2009 approx.) Participant Materials: N/A
Quality Assurance	
Monitoring	Fitness evaluation by instructor at enrollment, at 4 months and as often as needed thereafter. Site visits to assure program fidelity are recommended
Data Reporting	Enrollment, participation and fitness evaluation data submitted to Project Enhance.
Outcome Evaluation	Outcomes testing using tracking forms for participant demographics, functional testing, and attendance. Submitted to Project Enhance.
Sustainability	Programs may consider covering the cost of materials by charging a small participant registration fee. Establishing a lending library is another option.
<b>Contact Information</b>	
Developer	University Of Washington
Distributor	Project Enhance, located at Senior Services, Seattle
Contact	<a href="http://www.projectenhance.org/">http://www.projectenhance.org/</a>

## Enhance Fitness (EF)

### Physical Activity Intervention

Evidence Base (selected references)	
	<p>Wallace JI, Buchner DM, Grothaus L, Leveille S, Tyll L, LaCroix AZ, Implementation and effectiveness of a community-based health promotion program for older adults. <i>Journal of Gerontology: Medical Sciences</i> 1998, 53a (4):M301-M306. <a href="http://www.ncbi.nlm.nih.gov/pubmed/18314570">http://www.ncbi.nlm.nih.gov/pubmed/18314570</a> A randomized control trial (n=100) in which intervention subjects completed a 6-month exercise program. After 6 months the intervention group had significantly better scores on 7 of 8 SF-36 subscales and fewer depressive symptoms than controls. Senior centers may be excellent sites for community-based health promotion interventions: participation and adherence rates may be acceptable, interventions can be designed that are feasible in this setting, and these interventions appear to affect health status positively. The study program improved physical and psycho social functioning and is a promising model for preventing functional decline through activities based at senior centers.</p> <p>Ackermann RT, <a href="#">Williams B</a>, <a href="#">Nguyen HQ</a>, <a href="#">Berke EM</a>, <a href="#">Maciejewski ML</a>, <a href="#">LoGerfo JP</a>, Healthcare cost differences with participation in a community-based group physical activity benefit for Medicare managed care health plan members [abstract], <i>The Journal of The American Geriatrics Society</i>. 2008;56:1459-1465. <a href="http://www.ncbi.nlm.nih.gov/pubmed/18637982">http://www.ncbi.nlm.nih.gov/pubmed/18637982</a></p> <p>A retrospective cohort study of 1188 older adult health maintenance organization enrollees who participated at least once in the EF and a matched group of enrollees who never used the program. EF participants had similar total healthcare costs during Year 1 of the program, but during Year 2, adjusted total costs were \$1,186 lower than for non-EF users. Health plan coverage of a preventive physical activity benefit for seniors is a promising strategy to avoid significant healthcare costs in the short term.</p> <p>Basia B, Snyder S, Thompson M, LoGerfo J, From Research to Practice: Enhance Fitness, an Innovative Community-Based Exercise Program, <i>Topics in Geriatric Rehabilitation</i>. 2010; 26(4):299-309. <a href="http://jag.sagepub.com/content/25/4/291.full.pdf+html">http://jag.sagepub.com/content/25/4/291.full.pdf+html</a></p> <p>EF enrolled older adults (mean age 75.5years) who participated in outcomes testing; improvements were observed at 4 and 8 months on performance (Functional Fitness) tests that measure strength and functional mobility. Participant's self- rating of health improved at 8 months. Study demonstrated that older adults can maintain and/or improve physical function through participation in Enhance Fitness.</p>

## Fit and Strong! (F&S)

### Physical Activity Intervention

<b>Program Description</b>	Fit and Strong! (F&S) is a multicomponent program that combines flexibility, strength training and aerobic walking with health education for sustained behavior change among older adults with lower extremity osteoarthritis. Education and group discussion address building self-confidence toward exercise adherence, and developing individualized exercise plans.
Program Outcomes	Designed to improve exercise frequency and caloric expenditure in order to reduce pain and stiffness, increase strength, aerobic capacity, and self-efficacy for exercise.
Target Audience	Older adults with lower extremity osteoarthritis.
Key Activities	Exercise (60 minutes) and exercise-related education and discussion (30 minutes).
Setting	Community.
Mode of Delivery Class Size	Small group (20–25) participants.
Duration and Number of Sessions	Classes held 3 times per week for 90 minutes each for 8–weeks.
<b>Program Requirements</b>	
Capacity	
Instructor Qualifications	One certified exercise instructor (CEI) or licensed physical therapist (PT) per class.
Training and Training Source	One day (8 hours) F&S certification training is required and taught by an F&S master trainer. Available at <a href="http://www.fitandstrong.org">http://www.fitandstrong.org</a> .
License(s) and License Source	License required (see Implementation Costs next for specific information). Instructors must have either CEI or PT license.
Physical Space	<ul style="list-style-type: none"> <li>• Large, open, unobstructed area for walking (perimeter of room, long hallways, outdoor space if weather permits).</li> <li>• Room for chair placement for each participant. Participants should be able to stand and comfortably extend both arms laterally.</li> <li>• Storage space for equipment.</li> </ul>
Equipment	Elastic exercise bands, 10 lb. ankle weights chairs, floor mats, CD or tape player, access to mirrors and microphone (aerobic exercise equipment is ideal).
Implementation Costs	<ul style="list-style-type: none"> <li>• Licensing: First year fee for a system's main site \$3,000 and \$500 for each satellite site. Stand-alone site license costs \$2,000 if only offered at one site. Renewal license required after 1st year for main site or stand-alone site \$300. Each satellite site renewal fee \$100.</li> <li>• Training: included in the licensing fee. Transportation costs for trainers are additional.</li> <li>• Instructor: If you do not have a certified exercise instructor on staff, consider partnering with the YMCA or YWCA, local gyms, or parks and recreation departments who might be interested in sharing an instructor with you. If you need to hire a certified exercise instructor, note that the hourly rate for instructors varies by region. The following links to calculate hourly rates by region are available at <a href="#">American Council on Exercise</a>, <a href="#">Exercise Jobs</a>, <a href="#">US Department of Labor</a>, <a href="#">Bureau of Labor Statistics</a>, <a href="#">Occupational Outlook Handbook</a>.</li> <li>• Equipment: for a class of 20 approximate cost: \$1,425 (one time only).</li> <li>• Participant Materials: Manual \$30 each.</li> </ul>
Quality Assurance	
Monitoring	Periodic site visits to assure program fidelity are recommended. Instructor and participant

## Fit and Strong! (F&S)

### Physical Activity Intervention

	evaluations required.
Data Reporting	Attendance data must be submitted.
Outcome Evaluation	Optional.
Other	Participants complete physical activity contracts before end of 8 week course.
Sustainability	Programs may seek to cover expenses through participant registration fees. Instructors may be shared with YMCA etc.
<b>Contact Information</b>	
Developer	University of Illinois—Chicago.
Distributor	Center for Research on Health and Aging, University of Illinois at Chicago.
Contact	<a href="mailto:Fitandstronguic@gmail.com">Fitandstronguic@gmail.com</a> ; <a href="http://www.fitandstrong.org">http://www.fitandstrong.org</a> .
<b>Evidence Base (Selected References)</b>	
	<p>Hughes S, Seymour RB, Campbell R, Huber G, Pollack N, Sharma L, et al. Osteoarthritis long-term impact of Fit and Strong! on older adults with osteoarthritis, <i>The Gerontological Society of America</i>. 2006;46(6):801–814. Available at <a href="http://gerontologist.oxfordjournals.org/content/46/6/801.full.pdf+html">http://gerontologist.oxfordjournals.org/content/46/6/801.full.pdf+html</a>. Findings at 2 and 6 months from the final, larger sample tested in this randomized trial (n = 215) agree substantially with those described in our preliminary 2- and 6-month study. Both analyses found significant effects of Fit and Strong! at 2 and 6 months on self-efficacy for exercise and maintenance of physical activity that were accompanied by significantly decreased lower extremity stiffness. In both analyses, participants at 6 months also experienced a significant reduction in pain. Whereas the earlier analyses found a marginally significant improvement in self-efficacy to adhere to exercise over time, the final analyses with a larger sample found a significant difference on this outcome. Finally, the new 12-month analyses—on the basis of a reduced number of participants, found continued benefits of the program on self-efficacy for exercise, self-efficacy to continue to adhere to exercise over time, maintenance of physical activity, and borderline significant reductions in lower extremity stiffness and pain.</p> <p>Seymour RB, Hughes S, Campbell T, Huber G, Desai T. Comparison of two methods of conducting Fit and Strong! <i>Arthritis &amp; Rheumatism (Arthritis Care &amp; Research)</i> 2009;61(7):876–884.DOI 10.1002/art.24517. Available at <a href="#">Comparison of two methods of conducting the fit and strong! program - Seymour - 2009 - Arthritis Care &amp; Research - Wiley Online Library</a>. Outcomes under the two types of instruction are remarkably stable. These findings justify the use of CEIs in the future to extend the reach of the Fit and Strong! program.</p>

## Walk with Ease (WWE) - Group

### Physical Activity Intervention

<b>Program Description</b>	Walk with Ease (WWE) is a group program that combines self-paced group walks with health topic-related discussions.
Program Outcomes	Designed to decrease disability and improve arthritis symptoms, self-efficacy, and perceived control, balance, strength, and walking pace.
Target Audience	People with arthritis—appropriate for others including older adults.
Key Activities	Group participants walk at self-selected speed and distance. Group education about arthritis and behaviors includes group walking, safe walking and gardening, exercising safely and comfortably and information about sustaining physical activity by using a personal plan.
Setting	Community.
Mode of Delivery Class Size	Small group (12–15 participants per leader recommended) facilitated by a group leader. Groups may have more than one leader.
Duration and Number of Sessions	Three sessions per week that each last 60 minutes or less. Each session includes pre- and post-walk discussions and a 1040 minute walk6 weeks duration.
<b>Program Requirements</b>	
Capacity:	
Leader Qualifications	Arthritis Foundation (AF) WWE program leader certification required. Certification in CPR required. First aid certification recommended.
Training and Training Source	Two options: In-person 3–4 hour workshop or online training module available from AF. .
License(s) and License Source	License not required; however, a signed AF program cosponsorship agreement form, documenting organization’s understanding of responsibilities is required.
Physical Space	A safe and accessible place to walk either inside (e.g., indoor track, gymnasium, mall) or outside (e.g., neighborhood, walking trail).
Equipment	CD player and CD, posters.
Implementation Costs	<ul style="list-style-type: none"> <li>• Licensing: N/A.</li> <li>• Training: Online training workshop registration fee: \$50 including materials. Hosting an in-person training workshop includes in-person training workshop expenses: meeting room rental, LCD projector rental, refreshments (if not provided by site), trainer travel/ honorarium (if appropriate).</li> <li>• Leader Materials: Walk with Ease Leader’s Guide, program CD \$6.95, and posters: \$15.</li> <li>• Equipment: CD player.</li> <li>• Participant Materials: Walk with Ease participant workbooks: \$15 each.</li> <li>• Adequate general liability insurance (industry standard is \$1 million).</li> </ul>
Quality Assurance	
Monitoring	Site visits to assure program fidelity are recommended.
Data Reporting	Group Classes: Participant release forms, program information form, new enrollees reported to AF.
Outcome Evaluation	Optional.
Other	AF participant release form provides liability protection for trained leaders with a program Cosponsor agreement.
Sustainability	Programs may consider covering the cost of materials by charging a small participant registration



Walk with Ease (WWE) - Group	
Physical Activity Intervention	
	fee. Establishing a lending library is another option.
<b>Contact Information</b>	
Developer	Arthritis Foundation.
Distributor	Arthritis Foundation.
Contact	<a href="http://www.arthritis.org/walk-with-ease.php">http://www.arthritis.org/walk-with-ease.php</a> .
<b>Evidence Base (Selected References)</b>	
	<p>Callahan LF, Shreffler JH, Altpeter M, Schoster B, Hootman J, Houenou LO, et al. Evaluation of group and self-directed formats of the Arthritis Foundation's Walk With Ease Program. <i>Arthritis Care &amp; Research</i>. 2011;63( 8):1098–1107.</p> <p>Available at <a href="http://onlinelibrary.wiley.com/doi/10.1002/acr.20490/full">http://onlinelibrary.wiley.com/doi/10.1002/acr.20490/full</a>.</p> <p>Observational pre-and post-study n = 462) of subjects with self-reported arthritis. Group or self-directed WWE formats were studied. Performance and self-reported outcomes were assessed at baseline and at 6 weeks. Self-reported outcomes were assessed at 1 year. The revised WWE program decreases disability and improves arthritis symptoms, self-efficacy, and perceived control, balance, strength and walking pace in individuals with arthritis, regardless of whether they are taking a group class or doing the program as self-directed walkers. At 1 year, some benefits are maintained, particularly among the self-directed. This is a safe, easy, and inexpensive program to promote community-based physical activity.</p>



<b>Walk with Ease (WWE) - Self-Directed</b>	
Physical Activity Intervention	
<b>Program Description</b>	Walk with Ease (WWE): Self-Directed is a self-directed individual walking program.
Program Outcomes	Designed to decrease disability and improve arthritis symptoms; self-efficacy; and perceived control, balance, strength, and walking pace.
Target Audience	People with arthritis; appropriate for others including older adults.
Key Activities	Individuals use a guidebook to learn about arthritis, precautions and safety. A contract and log are provided. Participants walk on their own at self-selected walking speed and distance.
Setting	Individual.
Mode of Delivery	Individual.
Class Size	
Duration & # Sessions	Three times per week working up to at least 30 minutes per session—6 weeks duration.
<b>Program Requirements</b>	
Capacity	
Physical Space	Safe places to walk (indoor or outdoor).
Equipment	WWE guidebook and walking shoes.
Implementation Costs	A WWE guidebook is used to assure fidelity to the program is \$15 from the Arthritis Foundation ; individual purchases walking shoes as needed.
Quality Assurance	
Monitoring	
Data Reporting	
Outcome Evaluation	Optional.
Sustainability	Participants pay for program materials.
<b>Contact Information</b>	
Developer	Arthritis Foundation.
Distributor	Arthritis Foundation.
Contact	<a href="http://www.arthritis.org/walk-with-ease.php">http://www.arthritis.org/walk-with-ease.php</a>
<b>Evidence Base (Selected References)</b>	
	<p>Callahan LF, Shreffler JH, Altpeter M, Schoster B, Hootman J, Houenou LO, et al. Evaluation of group and self-directed formats of the Arthritis Foundation's Walk With Ease Program. <i>Arthritis Care &amp; Research</i>. 2011;63( 8):1098–1107.</p> <p>Available at <a href="http://onlinelibrary.wiley.com/doi/10.1002/acr.20490/full">http://onlinelibrary.wiley.com/doi/10.1002/acr.20490/full</a></p> <p>Observational pre- and post-study (n = 462) of subjects with self-reported arthritis. Group or self-directed WWE formats were studied. Performance and self-reported outcomes were assessed at baseline and at 6 weeks. Self-reported outcomes were assessed at 1 year. The revised WWE program decreases disability and improves arthritis symptoms, self-efficacy, and perceived control, balance, strength, and walking pace in individuals with arthritis, regardless of whether they are taking a group class or doing the program as self-directed walkers. At 1 year, some benefits are maintained, particularly among the self-directed. This is a safe, easy, and inexpensive program to promote community-based physical activity.</p>



## Arthritis Foundation Aquatic Program (AFAP)\*

\*Meets CDC Arthritis Program criteria; however, dissemination of this program is not funded by CDC because significant market penetration has been achieved.

### Physical Activity Intervention

<b>Program Description</b>	The Arthritis Foundation Aquatic Program (AFAP) is a recreational group water exercise program designed for people with arthritis.
Program Outcomes	AFAP classes are designed to improve functional ability, self confidence, self-care, mobility, muscle strength and coordination and to reduce fatigue, pain, and stiffness.
Target Audience	People with arthritis—appropriate for older people.
Key Activities	Exercises in water that may include joint range of motion, muscle strengthening with optional equipment, socialization activities and an optional moderate intensity endurance component.
Setting	Community.
Mode of Delivery Class Size	Small group (20 recommended).
Duration and Number of Sessions	Classes held 2–3 times per week for one hour each—6–10 weeks duration or ongoing.
Other	Swimming ability is not required to participate.
<b>Program Requirements</b>	
Capacity	
Instructor Qualifications	One Arthritis Foundation (AF) certified instructor per class. Must have CPR certification and be able to swim. Must have lifeguard or water safety certification and be affiliated with an AF approved facility. Must be willing to commit to teaching at least one class series per year.
Training and Training Source	AF certification including 1-day (8 hours) training. Training provided by AF. . Recertification every 3 years required. Training may be hosted by partnering organization. Water safety or life guard instruction may be available from YMCA.
License(s) and License Source	No license required. Must have a facility/organization cosponsor agreement with AF.
Physical Space	Warm (83–90 degree) swimming pool, water depth at shoulder level, must meet state pool safety requirements.
Equipment	Flotation devices and gloves/paddles.
Implementation Costs	<ul style="list-style-type: none"> <li>• License: N/A.</li> <li>• Training: \$50–\$150 per instructor (2009 approximately).</li> <li>• Instructor Guide/Materials: Instructor manual included in training costs.</li> <li>• Equipment: Refer to instructor manual for retailers.</li> <li>• Participant materials: N/A.</li> </ul>
Other	Refer to local AF chapter for current requirements and costs
Quality Assurance	
Monitoring	Standardized program curriculum with approved content and process per AFAP instructor manual including periodic site visits.
Data Reporting	Reporting as required by cosponsor agreement with AF including submitting quarterly course statistics using AF forms.
Outcome Evaluation	Optional per local AF chapter requirements.
Other	Cosponsor agreement needed.
Sustainability	Programs may consider covering the cost of materials by charging a small participant registration fee. Typical registration fee \$50 or less.
<b>Contact Information</b>	

## Arthritis Foundation Aquatic Program (AFAP)\*

\*Meets CDC Arthritis Program criteria; however, dissemination of this program is not funded by CDC because significant market penetration has been achieved.

### Physical Activity Intervention

Developer	Arthritis Foundation and YMCA of America.
Distributor	Arthritis Foundation.
Contact	<a href="http://www.arthritis.org/aquatics.php">http://www.arthritis.org/aquatics.php</a> . Local AF chapter information is available at <a href="http://www.arthritis.org">http://www.arthritis.org</a> .
<b>Evidence Base (Selected References)</b>	
	<p>Patrick DL, Ramsey SD, Spencer AC, Kinne S, Belza B, Topolski, T. Economic evaluation of aquatic exercise for persons with osteoarthritis. <i>Medical Care</i>. 2001;39(5):413–424. Available at <a href="http://www.jstor.org/pss/3768112">http://www.jstor.org/pss/3768112</a>.</p> <p>Randomized Control Trial (RCT): RCT of 12-week program: significant improvements in flexibility, strength and aerobic fitness (n = 249) for people aged 59 to 75 years with a doctor-confirmed diagnosis of osteoarthritis.</p> <p>Wang T, Belza B, Thompson FE, Whitney JD, Bennett K, Effects of aquatic exercise on flexibility, strength, and aerobic fitness in adults with osteoarthritis of the hip or knee. <i>Journal of Advanced Nursing</i> 2007;57(2):141–152. Available at <a href="http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2648.2006.04102.x/pdf">http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2648.2006.04102.x/pdf</a>.</p> <p>RCT of a 20-week program (n = 250), improvements reported in function and perceived physical quality of life. There were more positive outcomes when more than two classes were attended, but did not find increased improvements in self-reported function and pain.</p>

Intervention Summary Tables

<i>Self-Management</i>
<i>Education</i>



<b>Arthritis Self-Management Program (ASMP)</b>	
Self-Management Education Intervention	
<b>Program Description</b>	The Arthritis Self-Management Program (ASMP) is an interactive workshop for people with arthritis that is focused on chronic disease management skills including decision making, problem-solving and action-planning. (Formerly known as Arthritis Foundation Self-Help Program or the Arthritis Self Help Course.)
Program Outcomes	Designed to increase self-confidence, physical and psychosocial well-being and motivation to manage chronic arthritis challenges.
Target Audience	People with arthritis; appropriate for older adults.
Key Activities	Interactive education, discussion, brain storming, and practice of action-planning and feedback, behavior modeling, problem-solving techniques and decision making. Symptom management includes exercise, relaxation, communication, healthy eating, medication management and managing fatigue.
Setting	Community.
Mode of Delivery	Interactive small group recommended workshop size: 10–16 participants.
Size of Class	
Duration and Number of Sessions	2–2½ hour workshops held once per week for 6 weeks.
<b>Program Requirements</b>	
Capacity	
Leader Qualifications	Each workshop requires a pair of trained leaders. Leaders may include either two lay (peer) leaders or one health professional and one peer leader. One of the peer leaders should have a chronic condition.
Leader Training/Training Source	Leaders must first complete CDSMP leader training, a 4½-day training provided by CDSMP-certified master trainers (widely available in the U.S.). Following CDSMP training, leaders must complete a ½-day ASMP specific webinar offered by Stanford University.
License(s) and License Source	License must be purchased from Stanford University before the start of the program. License must be renewed every 3 years. License can be purchased specifically to offer ASMP as a single program license, or ASMP can be licensed through a multiple program license along with CDSMP and other Stanford Patient Education Research Center Programs. Information about current Stanford license fees is available at <a href="http://patienteducation.stanford.edu/licensing/">http://patienteducation.stanford.edu/licensing/</a> .
Physical Space	Community room that is Americans with Disability Act (ADA) accessible with enough space for leaders, participants, flip charts, white board, and comfortable chairs.
Equipment	Flip charts, markers, and a CD player.
Implementation Costs	<ul style="list-style-type: none"> <li>• Licensing: Single Program License: \$500 for offering 10 or fewer workshops/year; \$1,000 for offering 30 or fewer workshops per year. Offering more than 30 workshops per year must be negotiated with Stanford University Office of Technology Licensing. Multiple Program License: \$1,000 for offering a total of 25 workshops per year; \$1,500 for offering a total of 40 workshops per year.</li> <li>• Training: Leaders must complete CDSMP training as prerequisite to being trained in ASMP. Options include— <ul style="list-style-type: none"> <li>○ ASMP specific follow up training via webinar : \$350 per leader.</li> <li>○ Send leaders to training held locally and hosted by another organization (costs vary).</li> <li>○ Send leaders to training offered at Stanford. Registration fees for training are \$1,600 for each health professional, and \$900 for a lay person with a chronic disease.</li> <li>○ Host a leader-training by using local master trainers (costs vary), or bring Stanford master trainers to your location: \$16,000 plus travel costs for trainer for training up to 26 leaders per course.</li> </ul> Available at <a href="http://www.patienteducation.stanford.edu/training/">http://www.patienteducation.stanford.edu/training/</a>.</li> <li>• Leader Materials: Leader manual is provided with license and may be reproduced <i>The Arthritis Helpbook</i> is available for \$18.95 from a local book store.</li> <li>• Equipment: Flipchart, flipchart stand, and other training-related equipment.</li> <li>• Participant Materials: <i>Arthritis Helpbook</i> is available for \$18.95 from a local book store.</li> </ul>

<b>Arthritis Self-Management Program (ASMP)</b>	
Self-Management Education Intervention	
Quality Assurance	
Monitoring	Site visits are recommended to assure fidelity to ASMP.
Data Reporting	Every licensed organization must submit a yearly report to Stanford that includes the number of workshops offered, dates of each workshop and the number of participants. Leaders of each workshop are identified and if applicable, the number of leader trainings or master trainer trainings conducted.
Outcome Evaluation	Optional.
Sustainability	Programs may consider covering the cost of materials by charging a small participant registration fee. Establishing a lending library is another option.
<b>Contact Information</b>	
Developer	Stanford University Patient Education Research Center.
Distributor	Stanford University Patient Education Research Center.
Contact	Stanford: Contact Frank Villa or Gloria Samuel at 1-800-366-2624 or <a href="mailto:self-management@stanford.edu">self-management@stanford.edu</a> .
<b>Evidence Base (Selected References)</b>	
	<p>Lorig K, Lubeck D, Kraines RG, Seleznick M, Holman HR. Outcomes of self-help education for patients with arthritis [abstract]. <i>Arthritis and Rheumatism</i> 1985;28(6):680-685. Epub 2005. Available at <a href="http://onlinelibrary.wiley.com/doi/10.1002/art.1780280612/abstract">http://onlinelibrary.wiley.com/doi/10.1002/art.1780280612/abstract</a>.</p> <p>Behavioral and health status outcomes of an unreinforced, self-help education program for arthritis patients taught by lay persons were examined in 2 ways: a 4-month randomized experiment and a 20-month longitudinal study. At 4 months, experimental subjects significantly exceeded control subjects in knowledge, recommended behaviors, and in lessened pain. These changes remained significant at 20 months. The course was inexpensive and well-accepted by patients, physicians, and other health professionals.</p> <p>Goeppinger J, Armstrong B, Schwartz T, Ensley, D, Brady T. Self-management education for persons with arthritis: managing co-morbidities and eliminating health disparities. <i>Arthritis and Rheumatism</i>. 2007;57(6):1081–1088. Available at <a href="http://www3.interscience.wiley.com/cgi-bin/fulltext/114297542/PDFSTART">http://www3.interscience.wiley.com/cgi-bin/fulltext/114297542/PDFSTART</a>.</p> <p>The study compared short-term and long-term effectiveness of the Arthritis Self-Help Course (ASHC) and the Chronic Disease Self-Management Program (CDSMP) for persons with arthritis concerning health care use, health-related quality of life, health behaviors, and arthritis self-efficacy. At 4 months all ASHC participants including African Americans, had significant improvements in self-efficacy, stretching and strengthening exercises, aerobic exercises, and general health. Significant results at 1 year within and between programs were minimal for both groups. When populations with arthritis and multiple comorbid conditions are targeted, the CDSMP may be most cost effective.</p> <p>Brady T, Murphy L, Beauchesne D, Bhalakia A, Chervin D, Daniels B, et.al. [Internet] Sorting Through the Evidence for the Arthritis Self-Management Program and the Chronic Disease Self-Management Program (Report), Executive Summary of ASMP/CDSMP Meta-Analysis; May,2011. Available at <a href="http://www.cdc.gov/arthritis/docs/ASMP-executive-summary.pdf">http://www.cdc.gov/arthritis/docs/ASMP-executive-summary.pdf</a>.</p> <p>This study provided a quantitative synthesis of patterns across empirical studies to determine the effectiveness of ASMP on health status, health behaviors, and health care use in both short- and long-term follow-up. These meta-analyses used data from 24 studies of ASMP and 23 studies of CDSMP. The findings suggested that ASMP and CDSMP contribute to improvements in psychological health status, self-efficacy, and select health behaviors and that many of those improvements are maintained over 12 months. While the effects are modest, they have great public health significance when the cumulative impact of small changes across a large population is considered. Furthermore, if sustained, these shifts may have a substantial effect on health-related quality of life and the physical, psychological, and psychosocial impact of chronic health conditions.</p>



## Programa de Manego Personal la Artritis

### Spanish Arthritis Self-Management Program

#### Self-Management Education Intervention

<b>Program Description</b>	Programa de Manego Personal la Artritis is an interactive workshop for Spanish-speaking people with arthritis that focuses on chronic disease management skills including decisionmaking, problem-solving, and action-planning. The program was developed in Spanish by a team of researchers at Stanford University. It is modeled on the English version (ASMP). Workshops are conducted in Spanish and cover similar topics as ASMP in a culturally appropriate manner.
Program Outcomes	Designed to increase self-confidence, physical, and psychosocial well-being and motivation to manage chronic disease challenges.
Target Audience	Spanish-speaking people with arthritis; appropriate for older adults.
Key Activities	Interactive education, discussion, brain storming, and practice of action-planning and feedback, behavior modeling, problem-solving techniques and decision making. Symptom management includes exercise, relaxation, communication, healthy eating, medication management and managing fatigue.
Setting	Community.
Mode of Delivery Size of Class	Interactive small group recommended workshop size: 10–16 participants.
Duration and Number of Sessions	2–2½-hour workshops held once per week for 6 weeks.
<b>Program Requirements</b>	
Capacity	
Leader Qualifications	Each workshop requires a pair of Spanish-speaking trained leaders. Leaders may include either two lay (peer) leaders or one health professional and one peer leader. One of the peer leaders should have a chronic condition.
Training/Training Source	Leaders must first complete CDSMP leader training, a 4½-day training provided by certified CDSMP master trainers (widely available in the U.S.). Following CDSMP training, leaders must complete a ½-day ASMP specific webinar offered by Stanford University.
License(s) and License Source	License must be purchased from Stanford University before the start of the program. License must be renewed every 3 years. License can be purchased specifically to offer Spanish ASMP as a single program license, or Spanish ASMP can be licensed through a multiple program license along with ASMP, CDSMP, and other Stanford Patient Education Research Center Programs. Information about current Stanford license fees is available at : <a href="http://www.patienteducation.stanford.edu/licensing">http://www.patienteducation.stanford.edu/licensing</a> .
Physical Space	Community room that is Americans with Disability Act (ADA) accessible with enough space for leaders, participants, flip charts, white board, and comfortable chairs.
Equipment	Flip charts, markers, and a CD player.
Implementation Costs	<ul style="list-style-type: none"> <li>Licensing: Single Program License: \$500 for offering 10 or less workshops per year, \$1,000 for offering 30 or less workshops per year, offering over 30 workshops per year must be negotiated with Stanford University Office of Technology Licensing. Multiple Program License: \$1,000 for offering a total of 25 workshops per year; \$1,500 for offering a total of 40 workshops per year.</li> <li>Training: Leaders must complete CDSMP training as prerequisite to being trained in ASMP. Options include— <ul style="list-style-type: none"> <li>ASMP specific follow up training via webinar : \$350 per leader. <ul style="list-style-type: none"> <li>Send leaders to training held locally and hosted by another organization (costs vary).</li> <li>Send leaders to training offered at Stanford. Registration fees for training are \$1,600 for each health professional, \$900 for a lay person with a chronic disease.</li> <li>Host a leader-training by using local master trainers (costs vary), or bring Stanford master trainers to your location: \$16,000 plus travel costs for trainer for training up to 26 leaders per course.</li> </ul> </li> </ul> </li> </ul> <p>Available at <a href="http://www.patienteducation.stanford.edu/training/">http://www.patienteducation.stanford.edu/training/</a>.</p>

<b>Programa de Manego Personal la Artritis</b> <b>Spanish Arthritis Self-Management Program</b> Self-Management Education Intervention	
	<ul style="list-style-type: none"> <li>• Leader Materials: Leader manual is provided with license and may be reproduced. <i>The Arthritis Helpbook</i> is available for \$18.95 from a local book store.</li> <li>• Equipment: Flipchart, flipchart stand, and other training-related equipment.</li> <li>• Participant Materials: Cómo convivir con su artritis: Una guía para una vida activa y saludable (Segunda edición) (<i>Living with Arthritis: A Guide for an Active and Healthy Life</i>) is available from Bull Publishing.</li> </ul>
Quality Assurance	
Monitoring	Site visits are recommended to assure fidelity to CDSMP/ASMP.
Data Reporting	Every licensed organization must submit a yearly report to Stanford that includes the number of workshops offered, dates of each workshop and the number of participants. Leaders of each workshop are identified and if applicable, the number of leader trainings and/or master trainer trainings conducted.
Outcome Evaluation	Optional.
Sustainability	Programs may consider covering the cost of materials by charging a small participant registration fee. Establishing a lending library is another option.
<b>Contact Information</b>	
Developer	Stanford University Patient Education Research Center.
Distributor	Stanford University Patient Education Research Center.
Contact	Frank Villa or Gloria Samuel at 1-800-366-2624 or <a href="mailto:self-management@stanford.edu">self-management@stanford.edu</a> .
<b>Evidence Base (Selected References)</b>	
	<p>Lorig K, González VM, Ritter P. Community-based Spanish language arthritis education program: a randomized trial. <i>Medical Care</i>. 1999;37(9):957–963. PMID: 10493473.</p> <p>At 4 months, treatment subjects, compared with controls, demonstrated positive changes in exercise, disability, pain, and self-efficacy (<math>P &lt; 0.05</math>). At 1 year, compared with baseline, treatment subjects demonstrated improvements in exercise, general health, disability, pain, self-efficacy, and depression (<math>P &lt; 0.05</math>). Baseline and 4-month changes in self-efficacy predicted health status at 1 year. Conclusions: Spanish-speaking participants of an arthritis self-management program demonstrate short- and long-term benefits (improved health behaviors, health status, and self-efficacy).</p> <p>Wong AL, Harker JO, Lau VP, Lau VP, Shatzel S, Port LH, Spanish Arthritis Empowerment Program: a dissemination and effectiveness study. <i>Arthritis and Rheumatism</i>. . 2004; June 15; 51(3):332–336. PMID: 15188316.</p> <p>Available at <a href="http://www3.interscience.wiley.com/cgi-bin/fulltext/109062076/PDFSTART">http://www3.interscience.wiley.com/cgi-bin/fulltext/109062076/PDFSTART</a>.</p> <p>The objective of the study was to evaluate the effectiveness of the Spanish Arthritis Empowerment Program as presented by the Arthritis Foundation, Southern California Chapter, in Orange County, California. Of the 141 participants, 118 completed 6-month follow-up testing. Repeated-measures analysis of variance showed significant improvement from pretest to 6-month follow-up in pain; self efficacy, self-care behavior, arthritis knowledge, and general health. Small improvement was reported in mHAQ. The Spanish Arthritis Empowerment Program was successfully disseminated. Significant improvements in self efficacy and in arthritis symptoms were maintained at the 6-month follow up.</p>

## The Arthritis Toolkit

Self-Management Education Intervention	
<b>Program Description</b>	The Arthritis Toolkit is a self-study package of print and electronic media based on content from the Arthritis Self-Management Program (ASMP) for people with arthritis. It is focused on chronic disease management skills including decision making, problem-solving, and action-planning. (Available in Spanish as <i>Manejando Mi Artritis</i> .)
Program Outcomes	Designed to guide people to increase self-confidence, physical, and psychosocial well-being and motivation to manage chronic disease challenges.
Target Audience	People with arthritis; appropriate for older adults.
Key Activities	Self-assessment is used by the individual to tailor learning to individual needs, and to foster the practice of action-planning, problem-solving techniques, and decision making.
Setting	Individual.
Mode of Delivery	Individual self-study package includes <i>The Arthritis Self-Help Book</i> , information sheets and relaxation and exercise CDs.
Size of Class	
Duration and Number of Sessions	Self-paced.
<b>Program Requirements</b>	
Capacity	
Leader Qualifications	N/A.
Training/Training Source	N/A.
License(s) and License Source	N/A.
Physical Space	Space within the home for exercise.
Equipment	The Arthritis Toolkit and <i>Manejando Mi Artritis</i> (The Arthritis Toolkit Spanish edition) may be ordered directly from Bull Publishing.
Implementation Costs	Toolkit costs \$43.96 on-line plus shipping and handling. Bulk discounts are available.
Quality Assurance	
Monitoring	N/A.
Data Reporting	N/A.
Outcome Evaluation	
Sustainability	Programs may cover expenses by charging for participant materials or purchasing Toolkits and making them available through a lending library.
<b>Contact Information</b>	
Developer	Stanford University Patient Education Research Center and the University of North Carolina School of Nursing.
Distributor	Bull Publishing Company.
Contact	
<b>Evidence Base (Selected References)</b>	
	<p>Goeppinger J, Lorig KR, Ritter PL, Mutatkar S, Villa F, Gizlice Z. Mail-delivered arthritis self-management tool kit: a randomized trial and longitudinal follow-up. <i>Arthritis and Rheumatism</i>. 2009;15; 61(7):867–875.</p> <p>Available at <a href="http://onlinelibrary.wiley.com/doi/10.1002/art.24587/pdf">http://onlinelibrary.wiley.com/doi/10.1002/art.24587/pdf</a></p> <p>The purpose of this study was to determine the effectiveness of an intervention tool kit of arthritis self-management materials to be sent once through the mail, and to describe the populations reached. Spanish speakers (n = 335), non-Hispanic English-speaking African Americans (n = 156), and other non-Hispanic English speakers (n = 404) were recruited separately and randomized within each of the 3 ethnic/racial categories to immediately receive the intervention Tool Kit (n = 458) or to a 4-month wait-list control status (n = 463). At 4 months, there were significant benefits in all outcomes except medical care use and self-rated health. The results were maintained at 9 months compared with</p>

## The Arthritis Toolkit

### Self-Management Education Intervention

baseline. On average, the tool kit reached persons aged 50–56 years with 12–15 years of schooling. There were few differences between English- and Spanish-language participants in either the effectiveness or reach variables. A mailed Arthritis Self-Management Tool Kit proved effective in improving health status, health behavior, and self-efficacy variables for up to 9 months. It also reached younger persons in both English- and Spanish-language groups and Spanish speakers with higher education levels than previous studies of the small-group Arthritis Self-Management Program.

<b>Better Choices, Better Health<sup>®</sup> for Arthritis (BCBH for Arthritis)</b> <b>Internet-Based Group Arthritis Self-Management Program</b> Self-Management Education Intervention	
<b>Program Description</b>	Better Choices, Better Health <sup>®</sup> for Arthritis (BCBH for Arthritis) is an Internet-based group workshop using the content from the Arthritis Self-Management Program (ASMP) that focuses on arthritis management skills including decision making, problem-solving and action-planning. This has also been known as “Healthy Living with Arthritis.” The National Council on Aging (NCOA) and the Arthritis Foundation (AF) are collaborating to provide the BCBH for Arthritis intervention. Program dissemination is currently in a pilot test phase.
Program Outcomes	Designed to increase self-confidence, physical, and psychosocial well-being and motivation to manage arthritis challenges.
Target Audience	People with arthritis—appropriate for older adults.
Key Activities	The subject matter of the online version is much like the in-person ASMP workshop. The same skills for action planning, problem solving, brainstorming, relaxation techniques, etc. are taught; however, unlike the in-person workshops, the online program does not require a real-time commitment. Participants choose when to participate from week to week. Participants interact through message boards. Each week they set action plans and then report on how well they did the following week.
Setting	Individual.
Mode of Delivery Size of Class	Individual participates in a group Internet-based course; recommended class size is 20–25 although participants do not need to be online at the same time.
Duration and Number of Sessions	Participants are expected to log-on at their convenience approximately 2–3 times per week during a designated 6-week period. Participants may review previous sessions but may not move ahead of scheduled sessions.
<b>Program Requirements</b>	The Arthritis Foundation, in collaboration with the National Council on Aging (NCOA), is currently conducting a pilot test of BCBH for Arthritis dissemination through a cooperative agreement with the CDC Arthritis Program. Organizations may contact the AF for more information.
Capacity	
Facilitator Qualifications	Two trained peer facilitators are required for each 6-week workshop (at least one who has a chronic condition).
Training/Training Source	Trainers are currently provided by AF and NCOA.
License(s) and License Source	The NCOA is licensed to provide the online workshop. Currently, The Arthritis Foundation (AF) hosts the program. Information on the AF Web site is available at <a href="http://www.arthritis.org/">http://www.arthritis.org/</a> .
Physical Space	Individual.
Equipment	Individual computer.
Implementation Costs	Costs for pilot test activities are covered by the AF at this time.
Other	Activities at the organization level currently include marketing BCBH for Arthritis and recruiting participants. Potential participants are referred to AF to enroll in workshops.
Quality Assurance	
Monitoring	
Data Reporting	
Outcome Evaluation	
Sustainability	
<b>Contact Information</b>	
Developer	Stanford University Patient Education Research Center.
Distributor	National Council on Aging (NCOA).
Contact	Annie Parr at <a href="mailto:aparr@arthritis.org">aparr@arthritis.org</a> .

**Better Choices, Better Health<sup>®</sup> for Arthritis (BCBH for Arthritis)**  
**Internet-Based Group Arthritis Self-Management Program**

**Self-Management Education Intervention**

**Evidence Base**

**(Selected References)**

Lorig KR, Ritter PL, Laurent D, Plant K. The internet-based arthritis self-management program: A one-year randomized trial for patients with arthritis or fibromyalgia. *Arthritis & Rheumatism (Arthritis Care & Research)*. 2008;1559(7):1009–1017.  
 Available at [Research - Patient Education - Department of Medicine - Stanford University School of Medicine](#).  
 At 1 year, the intervention group significantly improved in 4 of 6 health status measures and self-efficacy. No significant differences in health behaviors or health care use were found. The Internet-based ASMP proved effective in improving health status measures at 1 year and is a viable alternative to the small-group ASMP.

<b>Chronic Disease Self-Management Program (CDSMP)</b>	
Self-Management Education Intervention	
<b>Program Description</b>	The Chronic Disease Self-Management Program (CDSMP) is an interactive workshop for people with a variety of chronic health conditions (e.g., arthritis, diabetes, heart or lung disease) that focuses on chronic disease management skills including decision making, problem-solving and action-planning.
Program Outcomes	Designed to increase self-confidence, physical, and psychosocial well-being and motivation to manage chronic disease challenges.
Target Audience	People with chronic health conditions including those with arthritis; appropriate for older adults.
Key Activities	Interactive education, discussion, brain storming, and practice of action-planning and feedback, behavior modeling, problem-solving techniques and decision making. Symptom management includes exercise, relaxation, communication, healthy eating, medication management and managing fatigue.
Setting	Community.
Mode of Delivery Size of Class	Interactive small group—recommended workshop size: 10–16 participants.
Duration and Number of Sessions	2–2½-hour workshops held once per week for 6 weeks.
<b>Program Requirements</b>	
Capacity	
Leader Qualifications	Each workshop requires a pair of trained leaders. Leaders may include either two lay (peer) leaders or one health professional and one peer leader. One of the peer leaders should have a chronic condition.
Training and Training Source	Leader training is 4½ days. Training may be provided at Stanford University or locally by Stanford-certified master trainers (widely available in the United States).
License(s) and License Source	License must be purchased from Stanford University before the start of the program. License must be renewed every 3 years. License can be purchased specifically to offer CDSMP as a single program license, or CDSMP can be licensed through a multiple program license along with ASMP and other Stanford Patient Education Research Center Programs. Information about current Stanford license fees is available at <a href="http://patienteducation.stanford.edu/licensing/">http://patienteducation.stanford.edu/licensing/</a> .
Physical Space	Community room that is Americans with Disabilities (ADA) accessible with enough space for leaders, participants, flip charts, white board, and comfortable chairs.
Equipment	Flip charts, markers, and a CD player.
Implementation Costs	<ul style="list-style-type: none"> <li>• Licensing: Single Program License: \$500 for offering 10 or less workshops per year; \$1,000 for offering 30 or less workshops per year; offering over 30 workshops per year must be negotiated with Stanford University Office of Technology Licensing. Multiple Program License: \$1,000 for offering a total of 25 workshops per year; \$1,500 for offering a total of 40 workshops per year. Available at <a href="http://patienteducation.stanford.edu/licensing/">http://patienteducation.stanford.edu/licensing/</a>. Training: CDSMP training options include— <ul style="list-style-type: none"> <li>○ Send leaders to training held locally and hosted by another organization (costs vary).</li> <li>○ Send leaders to training offered at Stanford. Registration fees for training are \$1,600 for each health professional, \$900 for a lay person with a chronic disease.</li> <li>○ Host a leader-training by using local master trainers (costs vary), or bring Stanford master trainers to your location: \$16,000 plus travel costs for trainer for training up to 26 leaders per course.</li> </ul> </li> <li>• Leader Materials: Leader manuals are provided with license (may be reproduced). CDSMP books: <i>Living a Healthy Life with a Chronic Condition</i>: \$19 each plus CDs \$12 each. Program materials are available from Bull Publishing Company.</li> <li>• Equipment: Flipchart, flipchart stand, and other training-related equipment.</li> <li>• Participant Materials: CDSMP book <i>Living a Healthy Life with a Chronic Condition</i>: \$19.00</li> </ul>



<b>Chronic Disease Self-Management Program (CDSMP)</b>	
Self-Management Education Intervention	
	plus CD: \$12 each.
Quality Assurance	
Monitoring	Site visits are recommended to assure fidelity to CDSMP.
Data Reporting	Every licensed organization must submit a yearly report to Stanford that includes the number of workshops offered, dates of each workshop and the number of participants. Leaders of each workshop are identified and if applicable, the number of leader trainings or master trainer trainings conducted.
Outcome Evaluation	Optional.
Sustainability	Programs may consider covering the cost of materials by charging a small participant registration fee. Establishing a lending library is another option.
<b>Contact Information</b>	
Developer	Stanford University Patient Education Research Center.
Distributor	Stanford University Patient Education Research Center.
Contact	Stanford: <a href="http://patienteducation.stanford.edu/programs/">http://patienteducation.stanford.edu/programs/</a> .
<b>Evidence Base (Selected References)</b>	
	<p>Lorig KR, Sobel DS, Stewart AL, Brown BW Jr, Bandura A, Ritter P, et al. Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalization a randomized trial [abstract]. <i>Medical Care</i>. 1999; 37(1):5-14. Available at <a href="http://www.ncbi.nlm.nih.gov/pubmed/10413387">http://www.ncbi.nlm.nih.gov/pubmed/10413387</a>.</p> <p>The study was a 6-month randomized, controlled trial at community-based sites comparing treatment subjects with wait-list control subjects. Participants were 952 patients aged 40 years or older with a physician-confirmed diagnosis of heart disease, lung disease, stroke, or arthritis. Health behaviors, health status, and health service use as determined by mailed, self-administered questionnaires, were measured. Treatment subjects, when compared with control subjects, demonstrated improvements at 6 months in weekly minutes of exercise, frequency of cognitive symptom management, communication with physicians, self-reported health, health distress, fatigue, disability, and social/role activities limitations. They also had fewer hospitalizations and days in the hospital. No differences were found in pain/physical discomfort, shortness of breath, or psychological well-being. An intervention designed specifically to meet the needs of a heterogeneous group of chronic disease patients, including those with comorbid conditions, was feasible and beneficial beyond usual care in terms of improved health behaviors and health status. It also resulted in fewer hospitalizations and days of hospitalization.</p> <p>Lorig K, Ritter PL, Plant K. A disease-specific self-help program compared with a generalized chronic disease self-help program for arthritis patients. <i>Arthritis and Rheumatism</i>. 2005;53(6):950–957. PMID: 16342084. Available at <a href="http://www3.interscience.wiley.com/cgi-bin/fulltext/112193125/PDFSTART">http://www3.interscience.wiley.com/cgi-bin/fulltext/112193125/PDFSTART</a>.</p> <p>Both the Arthritis Self-Management Program (ASMP) and the generic Chronic Disease Self-Management Program (CDSMP) have been shown to be successful in improving conditions in patients with arthritis. This study compared the relative effectiveness of the two programs for individuals with arthritis. Patients whose primary disease was arthritis were randomized to the ASMP (n = 239) or to the CDSMP (n = 116). The disease-specific ASMP appeared to have advantages over the more generic CDSMP for patients with arthritis at 4 months. These advantages had lessened slightly by 1 year. The disease-specific ASMP should be considered first where there are sufficient resources and participants. However, both programs had positive effects, and the CDSMP should be considered a viable alternative.</p> <p>Brady T, Murphy L, Beauchesne D, Bhalakia A, Chervin D, Daniels B, et.al. Sorting through the evidence for the arthritis self-management program and the chronic disease self-management program. [Executive Summary]. . 2011 May. Available at <a href="http://www.cdc.gov/arthritis/docs/ASMP-executive-summary.pdf">http://www.cdc.gov/arthritis/docs/ASMP-executive-summary.pdf</a>.</p> <p>A quantitative synthesis of patterns across empirical studies to determine the effectiveness of ASMP and CDSMP interventions on health status, health behaviors, and health care use in both short-term and long-term follow-up. These meta-analyses used data from 24 studies of ASMP and 23 studies of CDSMP. The findings suggested that ASMP and CDSMP contribute to improvements in psychological health status, self-efficacy, and select health behaviors and that many of those improvements are maintained over 12 months. While the effects are modest, they have great public health significance when the cumulative impact of small changes across a large population is considered. Furthermore, if sustained, these shifts may have a substantial effect on health-related quality of life and the physical, psychological, and psychosocial impact of chronic health conditions.</p>



<b>Tomando Control de su Salud</b> <b>Spanish Take Control of Your Health — Chronic Disease Self-Management Program</b> Self-Management Education Intervention	
<b>Program Description</b>	Tomando Control de su Salud is an interactive workshop for Spanish-speaking people with a variety of chronic health conditions (e.g., arthritis, diabetes, heart or lung disease) that focuses on chronic disease management skills including decision-making, problem-solving, and action-planning. The program was developed in Spanish by a team of Stanford University researchers. It is based on the English version Chronic Disease Self-Management Program (CDSMP). Workshops are conducted in Spanish and cover similar topics as CDSMP in a culturally appropriate manner.
Program Outcomes	Designed to increase self-confidence, physical and psychosocial well-being and motivation to manage chronic disease challenges.
Target Audience	Spanish-speaking adults with chronic health conditions including people with arthritis—appropriate for older adults.
Key Activities	Interactive education, discussion, brain storming, and practice of action-planning and feedback, behavior modeling, problem-solving techniques and decision making. Symptom management includes exercise, relaxation, communication, healthy eating, medication management, and managing fatigue.
Setting	Community.
Mode of Delivery Size of Class	Interactive small group—recommended workshop size: 10–16 participants.
Duration and Number of Sessions	2–2½-hour workshops held once per week for 6 weeks.
<b>Program Requirements</b>	
Capacity	
Leader Qualifications	Each workshop requires a pair of trained Spanish-speaking leaders. Leaders may include either two lay (peer) leaders or one health professional and one peer leader. One of the peer leaders should have a chronic condition.
Training/Training Source	Leader training is 4½ days. Training may be provided at Stanford or locally by Stanford certified master trainers.
License(s) and License Source	License must be purchased from Stanford University before the start of the program. License must be renewed every 3 years. License can be purchased specifically to offer ASMP as a single program license, or ASMP can be licensed through a multiple program license along with CDSMP and other Stanford Patient Education Research Center Programs. Information about current Stanford license fees is available at <a href="http://patienteducation.stanford.edu/licensing/">http://patienteducation.stanford.edu/licensing/</a> .
Physical Space	Community room that is Americans with Disabilities (ADA) accessible with enough space for leaders, participants, flip charts, white board, and comfortable chairs.
Equipment	Flip charts, markers, and a CD player,
Implementation Costs	<ul style="list-style-type: none"> <li>• Licensing: Single Program License: \$500 for offering 10 or fewer workshops/year; \$1000 for offering 30 or fewer workshops/year; offering more than 30 workshops/year must be negotiated with Stanford University Office of Technology Licensing. Multiple Program License: \$1,000 for offering a total of 25 workshops per year; \$1,500 for offering a total of 40 workshops per year. <a href="http://patienteducation.stanford.edu/licensing/">http://patienteducation.stanford.edu/licensing/</a>.</li> <li>• Training: CDSMP training options include—               <ul style="list-style-type: none"> <li>○ Send leaders to training held locally and hosted by another organization (costs vary).</li> <li>○ Send leaders to training offered at Stanford. Registration fees for training are \$1,600 for each health professional, \$900 for a lay person with a chronic disease.</li> <li>○ Host a leader-training by using local master trainers (costs vary), or bring</li> </ul> </li> </ul>

<b>Tomando Control de su Salud</b> <b>Spanish Take Control of Your Health — Chronic Disease Self-Management Program</b> Self-Management Education Intervention	
	Stanford master trainers to your location: \$16,000 plus travel costs for trainer for training up to 26 leaders per course. <ul style="list-style-type: none"> <li>• Leader Materials: Leader manuals are provided with license (may be reproduced). CDSMP books: Tomando Control de su Salud \$15.16 each plus CDs \$12 each. Program materials are available from Bull Publishing. Equipment: Flipchart, Flipchart stand, and other training-related equipment.</li> <li>• Participant Materials: CDSMP book <i>Tomando Control de su Salud</i> \$19.00 plus CD: \$12 \$15.16 each.</li> </ul>
Quality Assurance	
Monitoring	Site visits are recommended to assure fidelity to CDSMP.
Data Reporting	Every licensed organization must submit a yearly report to Stanford that includes the number of workshops offered, dates of each workshop and the number of participants. Leaders of each workshop are identified and if applicable, the number of leader trainings or master trainer training conducted.
Outcome Evaluation	Optional.
Sustainability	Programs may consider covering the cost of materials by charging a small participant registration fee. Establishing a lending library is another option.
<b>Contact Information</b>	
Developer	Stanford University Patient Education Research Center.
Distributor	Stanford University Patient Education Research Center.
Contact	<a href="http://patienteducation.stanford.edu/licensing/">http://patienteducation.stanford.edu/licensing/</a> .
<b>Evidence Base (Selected References)</b>	
	<p>Lorig KR, Ritter PL, González VM. Hispanic chronic disease self-management: a randomized community-based outcome trial [abstract]. <i>Nursing Research</i>. 2003;62(6):361–369. Available at <a href="http://journals.lww.com/nursingresearchonline/Abstract/2003/11000/Hispanic_Chronic_Disease_Self_Management_A.3.aspx">http://journals.lww.com/nursingresearchonline/Abstract/2003/11000/Hispanic_Chronic_Disease_Self_Management_A.3.aspx</a>.</p> <p>This study aimed to evaluate the Spanish version of CDSMP among Spanish speakers with heart disease, lung disease, or type 2 diabetes. At 4 months, the participants, as compared with usual-care control subjects, demonstrated improved health status, health behavior, and self-efficacy, as well as fewer emergency room visits. At 1 year, the improvements were maintained and remained significantly different from baseline condition.</p> <p>Lorig KR, Ritter PL, Jacquez A. Outcomes of border health Spanish/English chronic disease self-management programs.[abstract]. <i>Diabetes Educator</i>. 2005;31(3):401–409. Available at <a href="http://www.ncbi.nlm.nih.gov/pubmed/15919640?dopt=AbstractPlus">http://www.ncbi.nlm.nih.gov/pubmed/15919640?dopt=AbstractPlus</a>.</p> <p>The purpose of this study was to evaluate the community-based Chronic Disease Self-management program (CDSMP) and the Spanish-language version (Tomando Control de Su Salud) programs as delivered in settings along the Texas/New Mexico/Mexico border. Baseline self-efficacy and 4-month change in self-efficacy were significantly associated with improved 1-year outcomes. The CDSMP and Tomando are effective when used in settings other than that of the original study for populations other than those for which they were initially developed.</p>

Contact the CDC  
Arthritis Program  
for more  
information:

[http://www.cdc.gov/  
arthritism/interventi  
ons.htm](http://www.cdc.gov/arthritism/interventions.htm)

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